



TRANSMITTAL FORM

(to be used for all correspondence after initial filing)

TRANSMITTAL FORM (to be used for all correspondence after initial filing)	Application Number	10/656,802
	Filing Date	September 4, 2003
	First Named Inventor	Erik Scher
	Group Art Unit	1753
	Examiner Name	Unassigned
Total Number of Pages in This Submission		Attorney Docket Number 40-001320US

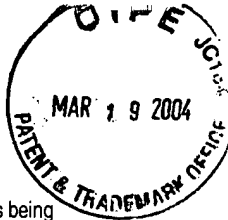
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<input type="checkbox"/> Response to Missing Parts/Incomplete Application	Authorization to Charge Deposit Account Please charge Deposit Account No. 50-0893 for any additional fees associated with this paper or during the pendency of this application, including any extensions of time for consideration of the documents enclosed.	
<input type="checkbox"/> Response to Missing Parts under 37 CFR 1.52 or 1.53	<div style="border: 1px solid black; padding: 5px;">Remarks</div>	

SIGNATURE OF APPLICANT, ATTORNEY, OR AGENT

Firm or Individual name	Jonathan Alan Quine, Reg. No. 41,261, Quine Intellectual Property Law Group, P.C.		
Signature			
Date	March 16, 2004		

CERTIFICATE OF MAILING


I hereby certify that this correspondence is being facsimile transmitted to the USPTO or deposited with the United States Postal Service with sufficient postage as first class mail in an envelope addressed to: Commissioner for Patents, P.O. Box 1450, Alexandria, VA 22313-1450 on the date shown below.			
Typed or printed name	Amelia Weintraub		
Signature		Date	March 16, 2004



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QUINE INTELLECTUAL PROPERTY LAW GROUP, P.C.

By


Amelia Weintraub

Attorney Docket No. 40-001320US
Client Ref. No. 01-001320US

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

In re application of:

Erik Scher, et al.

Application No.: 10/656,802

Filed: September 4, 2003

For: NANOSTRUCTURE AND
NANOCOMPOSITE BASED
COMPOSITIONS AND
PHOTOVOLTAIC DEVICES

Examiner: Unassigned

Art Unit: 1753

SUPPLEMENTAL INFORMATION
DISCLOSURE STATEMENT UNDER 37
CFR § 1.97 and
§ 1.98

Commissioner for Patents
P.O. Box 1450
Alexandria, VA 22313-1450

Sir:

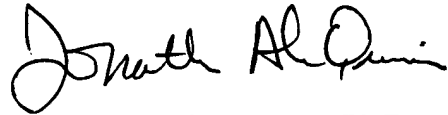
The references cited on attached form PTO-1449 are being called to the attention of the Examiner. Copies of the references are enclosed. It is respectfully requested that the cited information be expressly considered during the prosecution of this application, and the references be made of record therein and appear among the "references cited" on any patent to issue therefrom.

As provided for by 37 CFR 1.97(g) and (h), no inference should be made that the information and references cited are prior art merely because they are in this statement and no

representation is being made that a search has been conducted or that this statement encompasses all the possible relevant information.

Applicant believes that no fee is required for submission of this statement, since it is being submitted prior to the first Office Action on the merits per 37 CFR 1.97(b)(3). However, if a fee is required, the Commissioner is authorized to deduct such fee from the undersigned's Deposit Account No. 50-0893. Please deduct any additional fees from, or credit any overpayment to, the above-noted Deposit Account.

Respectfully submitted,

A handwritten signature in black ink, appearing to read "Jonathan Alan Quine". The signature is fluid and cursive, with the first name "Jonathan" being more prominent than the last name "Quine".

Jonathan Alan Quine, J.D., Ph.D.
Reg. No. 41,261

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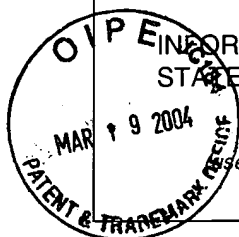
Substitute for form 1449A-B/PTO

Complete if Known

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First Named Inventor	Erik Scher
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Attorney Docket Number	40-001320US
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INFORMATION DISCLOSURE
STATEMENT BY APPLICANT

Use as many sheets as necessary)



U.S. PATENT DOCUMENTS

Examiner Initials	Cite No.	U.S. Patent Document		Name of Patentee or Applicant of Cited Document	Date of Publication of Cited Document MM-DD-YYYY	Pages, Columns, lines, Where Relevant Passages or Relevant Figures Appeal
		Number	Kind Code (if known)			
	01	2001/0046244	A1	Klimov et al.	11-29-2001	
	02	2003/0142944	A1	Sundar et al.	07-31-2003	
	03	2003/0226498	A1	Alivisatos et al.	12-11-2003	
	04	5,260,957		Hakimi et al.	11-09-1993	
	05	5,293,050		Chapple-Sokol et al.	03-08-1994	
	06	5,354,707		Chapple-Sokol et al.	10-11-1994	
	07	5,422,489		Bhargava	06-06-1995	
	08	5,585,640		Huston et al.	12-17-1996	
	09	5,613,140		Taira	03-18-1997	
	10	6,322,901	B1	Bawendi et al.	11-27-2001	
	11	6,501,091	B1	Bawendi et al.	12-31-2002	

FOREIGN PATENT DOCUMENTS

Examiner Initials	Cite No.	Foreign Patent Document			Name of Patentee or Applicant of Cited Document	Date of Publication of Cited Document MM-DD-YYYY	Pages, Columns, Lines, Where Relevant Passages or Relevant Figures Appear	T
		Office	Number	Kind Code (if known)				
	12	WO	96/10282					
	13	WO	03/084292		Massachusetts Institute of Technology	10-09-2003		

OTHER PRIOR ART - NON PATENT LITERATURE DOCUMENTS

Examiner Initials	Cite No.	Include name of the author (in CAPITAL LETTERS), title of the article (when appropriate), title of the item (book, magazine, journal, serial, symposium, catalog, etc.), date, page(s), volume-issue number(s), publisher, city and/or country where published.	T
	14	Alivisatos (1996) "Perspectives on the Physical Chemistry of Semiconductor NanoCrystals." J. Phys. Chem. 100:13226-13239.	
	15	Alivisatos (2000) "Naturally Aligned Nanocrystals" <u>Science</u> , 289:736	
	16	Colvin et al. (1994) "Light Emitting Diodes Made from Cadmium Selenide Nanocrystals and a Semiconducting Polymer. Nature 370-354-357.	
Examiner Signature			Date Considered

*EXAMINER: Initial if reference considered, whether or not citation is in conformance with MPEP 609. Draw line through citation if not in conformance and not considered. Include copy of this form with next communication to applicant.

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Substitute for form 1449A-B/PTO INFORMATION DISCLOSURE STATEMENT BY APPLICANT <i>(use as many sheets as necessary)</i>	Complete if Known	
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17	Dabbousi et al. (1995) "Electroluminescence from CdSe quantum-dot/polymer composites." Appl. Phys. Lett. 66(11):1316-1318.
18	Danek et al. (1996) "Synthesis of Luminescent Thin-Film CdSe/ZnSe Quantum Dot Composites Using CdSe Quantum Dots Passivated with an Overlayer of ZnSe." Chem. Mater. 8(1):173-180.
19	Diehl (1997) "Fraunhofer LUCOLEDs to replace lamps." III-Vs Rev. 10(1).
20	Empedocles et al. (1996) "Photoluminescence Spectroscopy of Single CdSe Nanocrystallite Quantum Dots." Phys. Rev. Lett. 77(18):3873-3876.
21	Empedocles et al. (1997) "Quantum-Confined Stark Effect in Single CdSe Nanocrystallite Quantum Dots." Science, 278-2114-2117.
22	Greenham et al. (1997) "Charge separation and transport in conjugated polymer cadmium selenide nanocrystal composites studied by photoluminescence quenching and photoconductivity." Synthetic Metals 84:545-546.
23	Guha et al. (1997) "Hybrid organic-inorganic semiconductor-based light-emitting diodes." J. Appl. Phys. 82(8):4126-4128.
24	Hines et al. (1996) "Synthesis and Characterization of Strongly Luminescing ZnS-Capped CdSe Nanocrystals." J. Phys. Chem. 100-468-471.
25	Hu et al. (2001) "Linearly polarized emission from colloidal semiconductor quantum rods." Science 292:2060-2063.
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28	Lawless et al. (1995) "Bifunctional Capping of CdS Nanoparticles and Bridging to TiO ₂ ." J. Phys. Chem. 99:10329-10335.
29	Lee et al. (2000) "Full color Emission from II-VI Semiconductor Quantum Dot-Polymer composites." Adv. Mater. 12(15):1102-1105.
30	Li et al. (2001) "Band gap variation of size- and shape-controlled colloidal CdSe quantum rods" <u>Nanoletters</u> 1, 349-351.
31	Li et al. (2002) "Semiconductor nanorod liquid crystals" <u>Nano Letters</u> 2: 557-560
32	Matsumoto (1996) "Preparation of Monodisperse CdS Nanocrystals by Size Selective Photocorrosion." J. Phys. Chem. 100(32):13781-13785.
33	Murray et al. (1993) "Synthesis and Characterization of Nearly Monodisperse CdE (E = S, Se, Te) Semiconductor Nanocrystallites" <u>J. Am. Chem. Soc.</u> 115, 8706

Examiner Signature		Date Considered	
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	34	Nirmal et al. (1996) "Fluorescence Intermittency in single Cadmium Selenide Nanocrystals." Nature, 383-802-804.	
	35	Scher et al. (2003) "Shape Control and Applications of Nanocrystals." Philosophical Transactions of the Royal Society London, Series A. 361:241-257	
	36	Schlamp et al. (1997) "Improved efficiencies in light emitting diodes made with CdSe(CdS) core/shell type nanocrystals and a semiconducting polymer." Journal of Applied Physics 82:5837-5842.	

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